

## Abstract

In this thesis, we study some general theory of valuations on a field. Especially, we obtain several equivalent conditions on the equivalence of two valuations on a field, some of them are new in the literature. Moreover, we study the  $p$ -adic analysis on the  $p$ -adic number fields and obtain some new phenomena and examples.



## 中文摘要

在這篇論文裡,我們探討體中之賦值的一般理論.最主要的,我們證明了多個賦值等價條件.進而我們探討 $p$ 進位數體中的分析,得到一些新的現象與例子.

